

Proceedings of the New York Entomological Society

(Meetings held in Room 129 of the American Museum of Natural History unless otherwise indicated.)

Meeting of October 1, 1968

President David Miller presided; 24 members and 15 guests were present. Dr. Miller announced that the consolidation of the New York and Brooklyn Entomological Societies had been consummated under the title THE NEW YORK ENTOMOLOGICAL SOCIETY INCORPORATING THE BROOKLYN ENTOMOLOGICAL SOCIETY, INC. Miss Alice Gray described the Junior Society's recent trip to the Archbold Biological Station in Lake Placid, Florida. Mr. Philip Bates of New York City was proposed for active membership. Dr. Charles P. Alexander of Amherst, Mass. and Mr. Rowland R. McElvare of Southern Pines, N.C. were proposed and elected to Honorary Membership. (See: **J. N. Y. Entomol. Soc.**, 77: 129.) Dr. Elsie Klots reported on plans for the 75th Anniversary Dinner of the Society which will be held at the American Museum of Natural History on October 29, 1969.

PROGRAM. **On Hands and Knees Through Africa** by Dr. James Slater of the University of Connecticut.

HOWARD R. TOPOFF, *Sec.*

Meeting of October 15, 1968

Vice-president Dr. Lee Herman presided; 16 members and 9 guests were present. Mr. Philip Bates of New York City was elected to active membership.

PROGRAM. **The Causes of Certain Insect and Plant Diseases** by Dr. Karl Maramorosch of the Boyce-Thompson Institute, Yonkers, N.Y.

HOWARD R. TOPOFF, *Sec.*

November 5, 1968—Election Day—No Meeting.

Meeting of November 19, 1968

Doctor David Miller presided; 10 members and 4 guests were present. Dr. Elsie Klots noted that the Danish Entomological Society had recently celebrated its 100th Anniversary. Dr. Klots also reported that congratulatory telegrams from Dr. Jerome Rozen and Mr. Raymond Bush were received too late to be read at the Society's 75th Anniversary Dinner. Mr. Joseph Concello, Jr. of the Peabody Museum of Natural History and Mr. Gerald Benham of the Dept. of Entomology at the University of Rhode Island were proposed for active membership. Mr. Louis Kudon of Narragansett, R.I. was proposed for student membership.

PROGRAM. **Spider Beetles in Ant Nests** by Dr. John Lawrence of Harvard University.

HOWARD R. TOPOFF, *Sec.*

Meeting of December 3, 1968

President David Miller presided; 17 members and 8 guests were present. Secretary Topoff read letters from Dr. Charles Alexander and Mr. Rowland McElvare expressing their appreciation of election to Honorary Membership in the Society. Mr. Joseph Concello, Jr. of

the Peabody Museum of Natural History and Mr. Gerald Benham of the Dept. of Entomology at the Univ. of R. I. were elected to active membership. Mr. Louis Kudon of Narragansett, R.I. was elected to student membership. Mr. Dominick Pirone informed the Society that the Tri-State Highway Commission was planning an expressway running from Peekskill to New Haven which would have a major interchange in the southern part of Westchester County's Ward Pound Ridge Reservation. Upon motion made by Mr. Teale and duly seconded the membership agreed that the Society express to the Tri-State Highway Commission its opposition to such use of public park and forest preserve. Copies of the letter are to be sent to the Connecticut Entomological Society, the American Entomological Society, and the Dept. of Limnology of the Philadelphia Academy of Natural Sciences.

PROGRAM. **Morphological Trends in Several Populations of Grasshoppers** by Dr. Nick Jago of the Academy of Natural Sciences in Philadelphia. (An abstract follows.)

HOWARD R. TOPOFF, *Sec.*

MORPHOLOGICAL TRENDS IN SEVERAL POPULATIONS OF GRASSHOPPERS

(and their bearing on an understanding of possible speciation
mechanisms in the groups concerned)

1. The grasshoppers reviewed belong to the Palaearctic-Ethiopian sub-family Calliptaminae. Their general habitat preferences, and some points of anatomical and behavioural interest were noted.

2. The species distribution and intraspecific population variation in *Calliptamus* are strongly suggestive of speciation resulting from isolation of populations in the last glacial/interglacial phase in Europe, Asia, and North Africa (20,000 to 30,000 years). The genus is split into two groups with different tolerance to aridity and pluvial conditions. The theory of stasi-patric speciation (White and later Key) was discussed in relation to explanation for existence of different geographical colour forms in the genus.

In Africa speciation may well have resulted from parallel hypo/hyperthermal phases on that continent producing similar isolating effects, with the alternate growth and disappearance of semidesert and desert corridors, or forest barriers.

3. In Africa south of the Sahara the effect of daylength mechanisms, closely tied to timing of the rains in Panequatorial Africa, seems in the past and at present to be an additional mechanism producing temporal and geographical isolation of breeding populations. Such processes may perhaps still be seen operating in *Acorypha* at infraspecific level.

4. It is assumed that recent glacial/interglacial and hypothermal/hyperthermal correlations suggest by Coetzee for East Africa are true. The climate of East Africa was discussed briefly to show how the present regime allows the coexistence of hypothermally and hyperthermally adapted sections of the genus *Acorypha*.

5. It was suggested that species may have evolved along similar lines in other groups in tropical Africa, e.g. Mormyridae-fishes with curious species pairs. Considering the great effect of seasonal variation on river flow it is not unlikely that marine and freshwater life may have been similarly affected. Daylength mechanisms could still operate to trigger maturation and other subtle ecological adaptations induce isolation and species divergence.

N. JAGO

Meeting of December 17, 1968

Doctor David Miller presided; 16 members and 6 guests were present. Mr. Joseph Routh of Armonk, N.Y. was proposed for active membership. Mr. Stanley Mallcom of the Dept.

of Biology of the City University and Mr. Ginter Ekis of the Dept. of Entomology at Rutgers were proposed for student membership.

PROGRAM. Two Naturalists in South America. Mr. and Mrs. Bernard Heineman described their recent travels up and down South America and illustrated their talk with color slides.

HOWARD R. TOPOFF, *Sec.*

Meeting of January 7, 1969—The Annual Meeting

President David Miller presided; 13 members and 5 guests were present. Mrs. Patricia Vaurie, Asst. Treasurer, read a preliminary report of the Treasurer. Dr. Forbes, Editor of the **Journal** pointed out that while the regular quarterly dates of publication had not been met, volume 76 for 1968 will contain over 300 pages which is 70 pages more than the average of the three previous volumes. Mr. Robert Buckbee reported briefly on arrangements being made to resume publication of **Entomologica Americana** under the editorship of Dr. James Slater. The Nominating Committee, consisting of Dr. Jerome Rozen, Miss Anna Flaherty, and Mr. Robert Buckbee presented the following slate of officers for the year 1969:

President—David Miller

Vice-president—Lee Herman

Treasurer—Winifred Trakimas

Assistant Treasurer—Patricia Vaurie

Secretary—Howard R. Topoff

Assistant Secretary—Michael Boshes

Trustees (for two year terms): Elsie Klots

Bernard Heineman

Publication Committee:

Lucy Clausen, John Schmitt, and Asher Treat

There were no further nominations and upon motion made and duly seconded the Secretary was instructed to cast one ballot for the unanimous election of the above mentioned candidates.

Mr. Joseph Routh of Armonk, N.Y. was elected to active membership.

Mr. Stanley Mallcom of the Dept. of Biology of the City University and Mr. Ginter Ekis of the Dept. of Entomology at Rutgers were elected to student membership.

PROGRAM. Wildlife, Past, Present and Future in the New Jersey Pine Barrens. Mr. Ginter Ekis, substituting for Dr. Howard Topoff who was ill, showed color slides of amphibians, reptiles, birds, mammals, and insects to illustrate his studies in this area. Many of the animals are nocturnal and Mr. Ekis explained his technique in photographing these subjects.

JAMES FORBES, *Sec., pro tem.*

Meeting of January 21, 1969

Doctor Miller presided; 23 members and 7 guests were present. The Annual report of the Treasurer, submitted by Mr. N. Shoumatoff was accepted and incorporated into the records of the Society. Dr. Daniel Sullivan of Fordham Univ. was proposed for active membership. Mr. William Krinsky of Yale University School of Medicine was proposed for student membership. Mr. Heineman proposed Dr. Alexander B. Klots and Dr. Asher Treat for

Honorary Membership. Dr. Miller reported that the Society had reached an agreement with the Steckert-Hafner Service Agency to handle back issues of its publications. (See: **J. N. Y. Entomol. Soc.**, 77: 39.) Dr. Elsie Klots called the Society's attention to an article by Dr. Ethel Tobach in the January issue of **Natural History** about the late Dr. T. C. Schneirla, a member of the Society. (See: **J. N. Y. Entomol. Soc.**, 76: 175.)

PROGRAM. In Search of the Black Bees of Morocco and the White Bees of South Africa. Dr. Jerome Rozen discussed the special relationship of two kinds of burrowing bees to their surroundings and illustrated his talk with many colored slides.

HOWARD R. TOPOFF, *Sec.*

Meeting of February 4, 1969

President Miller presided; 18 members and 6 guests were present. Dr. Daniel Sullivan of Fordham University was elected to active membership, and Mr. William Krinsky of the Yale University School of Medicine was elected to student membership. Dr. Alexander Klots and Dr. Asher Treat were elected to Honorary Membership. In recognition of these two new honorary members, Dr. Topoff cited the services that both men had rendered to the Society over a period of many years, to the City University, and to the biological sciences. (See: **J. N. Y. Entomol. Soc.**, 77: 130.) Mr. Christopher Stephens of New York City, Mr. David Franklin of Elmsford, N.Y., and Mr. Robert Bechtel of the Nevada Dept. of Agriculture were nominated for active membership. Miss Diane Witwer of Kent State University was proposed for student membership.

PROGRAM. To Fly, To Creep, To Burrow—How Beetles Get To and Flourish Everywhere. Mr. Tom Hlavac of Harvard University discussed relationships between the habitat and movement of beetles and the functional morphology of their thoraces.

HOWARD R. TOPOFF, *Sec.*

Meeting of February 18, 1969

President Miller presided; 12 members and 12 guests were present. Mr. Christopher Stevens of New York City, Mr. David Franklin of Elmsford, N.Y., and Mr. Robert Bechtel of the Nevada Department of Agriculture were elected to active membership. Miss Diane Witwer of Kent State University was elected to student membership. Mr. Frederick Miller of Seaford, N.Y. was proposed for active membership.

PROGRAM. How We Study Communication in Ants by Dr. Howard Topoff. (The abstract follows.)

HOW WE STUDY COMMUNICATION IN ANTS

Populations of army ants are characterized by group predation and cyclic behavior consisting of alternating nomadic and statory phases. In the nearctic army ant, *Neivamyrmex nigrescens*, raiding and migrations take place on chemical trails laid down from the hindguts of the workers.

Laboratory tests have shown that individual ant workers are sensitive enough to be able to follow the trail of only one ant running across a piece of filter paper. Although males of *N. nigrescens* are three to four times as large as adult workers, they also can follow the trail

of one worker. Immature (callow) workers were tested on these same trails. Callows removed from intact colonies in the field were equally as sensitive to trail chemicals as adult workers. However, callows reared in the laboratory from pupae isolated from their colonies, were significantly less sensitive. The development of trail-following behavior in army ants may be influenced by a form of olfactory conditioning in the immature stages.

HOWARD R. TOPOFF

Meeting of March 4, 1969

Doctor David Miller presided; 12 members and 4 guests were present. The Auditing Committee, consisting of Miss Anna Flaherty and Mr. Bernard Heineman reported that they had examined the books and found the Annual Report of the Treasurer to be correct. They commended the Treasurer, Mr. Shoumatoff, on the excellent condition of the financial records. Mr. Frederick Miller of Seaford, N.Y. was elected to active membership. Mr. Richard Schaffer, a visitor, exhibited insects collected by him in Vietnam.

PROGRAM. **The Digestive System and Genitalia of Some Beetles** by Dr. A. P. Gupta of the Department of Entomology at Rutgers the State University. He also showed color slides made in the summer of 1968 when he attended the International Entomological Congress held in Moscow.

WINIFRED TRAKIMAS, *Sec., pro tem.*

Meeting of March 18, 1969

President David Miller presided; 14 members and 6 guests were present. Dr. A. P. Gupta of the Department of Entomology at Rutgers and Dr. Paul Shubeck of Montclair State College were proposed for active membership. Miss Jeural Singleton of Grand Forks, North Dakota, was proposed for student membership.

PROGRAM. **Song of the Katydids** by Dr. Michael Emsley of the Academy of Natural Sciences in Philadelphia. (An abstract follows.)

HOWARD R. TOPOFF, *Sec.*

SONG OF THE KATYDIDS

For many years laymen and scientists have known that different species of katydids sing different songs. The almost exclusive dependence upon sound for sexual selection has been responsible for a conservative morphology which has made the taxonomy of Tettigoniidae very difficult. Perhaps it was because of traditional mounting techniques and care for the conservation of the specimen that the sound producing organ that lies beneath the base of the left tegmen had not been thoroughly examined before. Now that these organs have been studied it is apparent that the number and linear spacing of the teeth on the stridulatory file is a prime specific character, and can be presented graphically for publication. The talk was illustrated with colored transparencies of whole insects and their stridulatory organs, together with tape recordings of their songs.

MICHAEL EMSLEY

Meeting of April 1, 1969

President Miller presided; 16 members and 3 guests were present. Dr. A. P. Gupta of the Department of Entomology at Rutgers University and Dr. Paul Shubeck of Montclair State College were elected to active membership. Miss Jeural Singleton of Grank Forks, North Dakota, was elected to student membership.

PROGRAM. **Bird Plumage as an Insect Attractant** by Mr. John Morony, a member of the Department of Ornithology of the American Museum of Natural History, discussed relationships between bird plumage colors and their feeding habits.

HOWARD R. TOPOFF, *Sec.*

Meeting of April 15, 1969

Vice-president Lee Herman presided; 9 members and 12 guests were present. Dr. T. D. Sargent of the Department of Zoology at the University of Massachusetts was nominated for active membership. Mr. Howard Harris of the Department of Entomology at Clemson University and Mr. Joseph Hengst of Valley Stream, Kentucky were nominated for student membership.

PROGRAM. **Cave Entrance Communities.** Dr. Richard Graham discussed ecological relationships between animals living in zones of varying distance from cave entrances.

HOWARD R. TOPOFF, *Sec.*

Meeting of May 6, 1969

President Miller presided; 11 members and 2 guests were present. In the absence of the Secretary Dr. Winifred Trakimas served as secretary *pro tempore*.

Dr. T. D. Sargent of the Department of Zoology at the University of Massachusetts was elected to active membership. Mr. Howard Harris of the Department of Entomology at Clemson University and Mr. Joseph Hengst of Valley Stream, Kentucky were elected to student membership.

PROGRAM. **Certain Diseases Transmitted by Mosquitoes.** Dr. Dominic Do-Van-Quy of Fairleigh Dickinson University discussed the biology, ecology, and genetics of two disease-producing mosquitoes in South Vietnam.

WINIFRED TRAKIMAS, *Sec., pro tem.*

Meeting of May 20, 1969

President Miller presided; 19 members and 5 guests were present. Dr. Dominic Do-Van-Quy was nominated for active membership. Since this meeting will be the last for the spring session, with the next meeting not scheduled until October, the membership unanimously agreed to suspend the By-laws and elect Dr. Do-Van-Quy immediately.

President Miller explained that the N. Y. Entomological Society had a Trust Fund administered by the First National Bank of New York. The capital value has declined from \$4,000.00 in 1964 to approximately \$3,300.00 currently. The Executive Committee at a meeting held this afternoon at 5:15 P.M. agreed to convert to cash and deposit the cash in a savings account. Since, under an agreement signed in 1917, $\frac{3}{4}$ of the membership of the Society must agree to any transfer of these funds, Dr. Miller further explained that a letter

will be received by every member asking that the enclosed form be signed and returned to the Society so that the Society will be authorized to liquidate this trust fund.

PROGRAM. **Are Taxonomists Antievolutionists?** Mr. Conor Duggan of Fordham University was the speaker. (An abstract follows.)

HOWARD TOPOFF, *Sec.*

ARE TAXONOMISTS ANTIEVOLUTIONISTS?

This study examines the role of various conceptual frameworks in the theory and practice of Systematics. A conceptual framework refers to the context in and through which man views the world. The framework specifies the investigator's presupposition (presuppositions which are not usually questioned) and such presuppositions determine the kinds of questions asked and the types of problems to be dealt with in the investigation. Scientific progress then may be looked upon as the synthesis and replacement of successive scientific conceptual frameworks.

The history of systematics serves to illustrate the all-persuasive influence of a framework upon the investigator. For instance, the Greeks, with their static picture of the world, viewed organisms as fixed kinds or types. Deviation from this fixed type was an imperfect manifestation of what was real and consequently change to them was an illusion. This type of thinking played an important role among 18th and 19th century biologists. Those who accepted it (e.g. Linnaeus, Cuvier, Agassiz, etc.) had to deny the reality of evolution; while those who accepted evolution (e.g. Darwin, Lamarck) refused to acknowledge the reality of taxonomic categories.

This confrontation of frameworks (systematics emphasizing static essences and evolution stressing process and change) was resolved when organisms were viewed in terms of dynamic interbreeding populations rather than as individual types. This conceptual revision in populational dynamics is the basis upon which both the synthetic theory of evolution and the systematics of today depend.

C. DUGGAN